

Steve Ledoux

3/29/10 (7)

From: Paulina Knibbe [p.knibbe@comcast.net]
Sent: Thursday, March 25, 2010 3:35 PM
To: Manager Department
Subject: [Fwd: \$\$ highlights---Green Community grants]

Please include this email as material in the packet for the Green Communities discussion.

Paulina

----- Original Message -----

Subject: \$\$ highlights---Green Community grants
Resent-From: <gab@acton-ma.gov>
Date: Wed, 24 Mar 2010 11:49:25 -0400
From: Kate Crosby <kate_crosby@newview.org>
Reply-To: <kate_crosby@newview.org>
To: Green Advisory Board <gab@acton-ma.gov>

Here's the highlights from the grant application guidelines due on May 28....if we achieve the five criteria by May 14. Put your thinking caps on! --Kate

HIGHLIGHTS of GREEN COMMUNITIES GRANT PROGRAM:

Grants shall be used to finance all or a portion of the costs of:

- studying, designing, constructing and implementing energy efficiency activities, including but not limited to, energy conservation measures and projects
- procurement of energy management services
- installation of energy management systems
- adoption of demand side reduction initiatives
- adoption of energy efficiency policies
- siting and construction of renewable and alternative energy projects on municipally-owned land.

Awards will be evaluated based on the following criteria:

Project Viability

- Shovel readiness (feasibility, design, permits, procurement)
- Budget / Financing (including project budget, pay-back, funds leveraged, etc.)
- Energy reduced by funds spent

Projected Energy Impacts

- Efficiency Measures Implemented to date
- Availability of resources (e.g. Wind Mapping Score)
- CO2 reductions

3/26/2010

- Energy reduced by funds spent

Projected Economic Development Benefit

- Job creation / job retention
- Market transformation
- Other economic development benefits associated with this project

Bonus

- Environmental Justice Community
- Regional Applications
- As-of-Right Zoning for generation
- Innovative Green Initiatives Implemented (Appendix D of grant application)

Funds cannot be used for projects that have already begun physical construction

(excerpted from Program Opportunity Notice referenced in Meg Lusardi email 3.24.10)

MEMORANDUM

To: Acton Boxborough Regional School Committee
& Acton Public School Committee
From: Kate Crosby, Co-chair, Green Advisory Board
Date: March 19, 2010
Subject: Acton's "Green Community" Designation

As you may know, the Green Advisory Board is moving toward a goal of achieving designation as a "Green Community" for Acton. This will be accomplished by satisfying five criteria specified by the Massachusetts Department of Energy Resources.

There are significant intrinsic benefits to completing these five criteria, including substantially reduced energy costs and a lighter environmental footprint for school and municipal operations.

There is also a significant secondary benefit to achieving this designation, which is that Acton then becomes eligible to apply for a portion of the \$10million in annual funding available to "Green Community" municipalities. This funding is to be used for energy efficiency and renewable energy projects, which will help to further lower the municipality's energy use.

Two of these criteria will require the review and participation of the School Committees:

- Criteria 3, which requires the approval by the School Committees and Board of Selectmen of a plan to reduce the baseline energy use of municipal and school operations by 20% over five years
- Criteria 4, which requires the adoption by the School Committees and the Board of Selectmen of a policy to purchase only fuel-efficient vehicles when commercially available and practicable (note that several categories of vehicles are exempt, such as school buses, police cruisers and public works trucks)

The Green Advisory Board is exploring the possibility of accomplishing the five "Green Community" criteria by May 14, 2010, which is the deadline for the initial round of applications for "Green Community" designation.

Toward this end, we plan to make a brief presentation at the March 25th meeting of the Acton Boxborough Regional School Committee.

It is our understanding that there will be a second round of applications for "Green Community" designation accepted by DOER in the fall of 2010.

Accompanying this memo are four background documents:

- A brief description of DOER's five "Green Community" criteria with annotation re: Acton's current status
- Information re: the funding available through the "Green Community" program
- Guidance from DOER re: Criteria 3
- Guidance from DOER re: Criteria 4

We look forward to reviewing this with you on March 25th.

ACTON'S CURRENT STATUS re: DOER GREEN COMMUNITY CRITERIA (3.19.10)

-compiled by Kate Crosby, Co-chair, Green Advisory Board

1.AS-OF-RIGHT SITING: Provide for as-of-right siting of renewable or alternative energy facilities for generation OR manufacturing OR R&D.

[Acton status March, 2010: Completed--approved at Town Meeting in June, 2009]

2.EXPEDITED PERMITTING: Adopt an expedited application and permitting process under which these facilities may be sited within the municipality

[Acton status March, 2010: Discussions in process with Roland Bartl and Planning Board]

3.BASELINE ENERGY INVENTORY & PLAN FOR 20% REDUCTION:

Establish an energy use baseline inventory for municipal/school buildings, vehicles, street & traffic lighting. Put in place a comprehensive program designed to reduce this baseline by 20% within 5 years.

[Acton status March, 2010: Inventory essentially complete, needs review & analysis for selection of optimal "baseline" year. Need to create plan for 20% energy reduction over 5 years with approval of BoS and School Committees.]

4.FUEL-EFFICIENT VEHICLES: Purchase only fuel-efficient vehicles for municipal/school use where practicable.

[Acton status March, 2010: GAB believes that Acton is essentially in compliance with this requirement, but must create vehicle inventory document and written plan addressing future replacement of any vehicles not in compliance. Plan must be adopted by BoS and School Committees. Note that several categories of vehicles are exempt, including police cruisers, ambulances, fire trucks, heavy equipment, school buses.]

5.STRETCH CODE: Adopt this optional appendix to the state building code which requires new construction & renovations to meet a higher standard of energy efficiency.

[Acton status March, 2010: This proposal is on the warrant for the April Town Meeting. FAQ's and additional information available through the "Stretch Energy Code Information" link at www.acton-ma.gov.]

Additional information about the Green Community criteria is available at the Department of Energy Resources website:

http://www.mass.gov/?pageID=eoeeterminal&L=3&L0=Home&L1=Energy%2c+Utilities+%26+Clean+Technologies&L2=Green+Communities&sid=Eoeea&b=terminalcontent&f=doer_gree_n_communities_gc-grant-program&csid=Eoeea

BACKGROUND INFORMATION re: FUNDING AVAILABLE TO MUNICIPALITIES UPON COMPLETION OF EOEEA “GREEN COMMUNITY” CRITERIA

-compiled by Kate Crosby, Co-chair, Green Advisory Board 3.7.10

I. PORTION OF GREEN COMMUNITIES ACT (passed July 2008) RELEVANT TO GRANTS TO THOSE MUNICIPALITIES DESIGNATED AS A “GREEN COMMUNITY”:

M.G.L. Chapter 25A: Section 10. Division of green communities; duties of director; program; qualification as a green community; funding; rules; annual report

(d) Funding for the green communities program in any single fiscal year shall be available, without the need for further appropriation [emphasis added], in a total amount of not more than \$10 million from: (1) monies generated by all cap and trade pollution control programs, including, but not limited to, the cap and trade program established under the NOx Allowance Trading Program and the carbon dioxide allowance trading mechanism established under the Regional Greenhouse Gas Initiative [RGGI auction], as defined in subsection (a) of section 22 of chapter 164; (2) such amounts as may be directed to municipalities or other governmental bodies under section 19 of chapter 25; (3) amounts from alternative compliance payments established and administered under 225 CMR 14.00 adopted under section 11F; and (4) other funds as the governing board of the Massachusetts Renewable Energy Trust Fund established under section 4E of chapter 40J, may provide.

II. INFORMATION FROM GREEN COMMUNITIES DIVISION OF EOEEA re: LAUNCH OF GREEN COMMUNITIES GRANT PROGRAM:

The Green Communities Division is pleased to announce the official launch of the Green Communities designation and grant program! As many of you know, the Green Communities designation and grant program was created by the Green Communities Act of July 2008. Funded by proceeds from the Regional Greenhouse Gas Initiative (RGGI), grants will be provided to municipalities who meet 5 criteria and qualify to be designated as a Green Community. These grants can be used for energy efficiency or renewable energy initiatives [emphasis added]. To date, the Green Communities Division has been creating guidance and tools, and providing technical assistance through its Regional Coordinators and its Planning Assistance consultants to help municipalities meet the qualification criteria. The Green Communities toolkit can be found on our website at www.mass.gov/energy/greencommunities

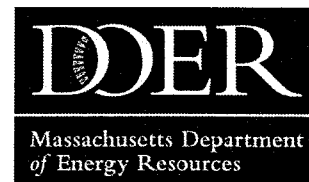
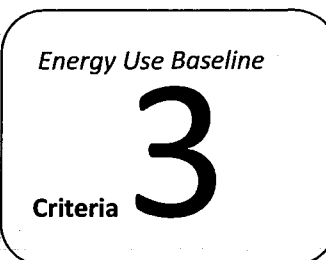
We are now launching the designation and grant program, with a 2 stage application process.

First, a community must apply to be designated a Green Community by demonstrating it has met all of the qualification criteria. If a municipality is designated a Green Community, then it can submit an application for grant funding.

Approximately \$7 million (total) is available to support Massachusetts’ communities through the Grant Program for FY 2010 [emphasis added]. [Funding for FY 2011 is already planned at \$10 million.]

We look forward to receiving your applications and creating a Greener Energy Future for the Commonwealth!

Meg Lusardi, Deputy Director, Green Communities Division, Massachusetts Department of Energy Resources
<http://www.mass.gov/doer/>



Sample Energy Reduction Action Plan Outline

INTRODUCTION

Criteria Three of the Green Communities Program requires that a municipality:

- (1) Establish an energy use baseline inventory for municipal buildings, vehicles, street and traffic lighting

The energy use baseline is applied in the aggregate across buildings, streetlights and vehicles on an MMBTU (million British Thermal Units) basis.

There are a number of acceptable tools for performing the inventory including:

- a. EnergyStar Portfolio Manager
- b. ICLEI software
- c. DOER's Energy Information Reporting System
- d. Other tools proposed by the community and deemed acceptable by DOER

- (2) Put in place a comprehensive program designed to reduce this baseline by 20 percent within 5 years of initial participation in the program.

This guidance was prepared to assist cities and towns in developing a comprehensive program designed to reduce their baseline energy use by 20% within five years of initial participation in the Green Communities Program. This outline is intended for illustration purposes only, though communities are free to utilize the format provided.

ENERGY REDUCTION ACTION PLAN OUTLINE

A comprehensive reduction plan consists of a number of key components which enables a municipality, to establish energy reduction goals and develop a structure to meet those goals over a specific period of time. Green Communities recommends the following information / data be included in a energy reduction plan:

PURPOSE AND ACKNOWLEDGEMENTS

- Letter from municipal officials verifying adoption of the energy reduction plan

- List of contributors that participated in the baseline and reduction plan process
- Executive summary

I. INTRODUCTION

A. *Background*

- i. Summary of the town – populations, number of municipal buildings including schools, number of vehicles, fuel usage (eg. oil, propane, natural gas)
- ii. Goal of reducing fossil fuel energy use – include goals regarding any special school accreditations, Energy Star ratings, becoming a Green Community, EPA Community Energy Challenge, ICLEI community
- iii. Municipality's role
 - a. Energy use baseline inventory
 - b. Energy use forecast
 - c. 20% reduction
 - d. Statement of goals and strategies to be used in carrying out the action plan

II. RESULTS OF ENERGY USE BASELINE INVENTORY

A. *Inventory tool used*

B. *Existing municipal energy use*

- i. Municipal buildings
- ii. Vehicles
- iii. Street and traffic lighting

C. *Existing efficiency measures implemented in last 2 years*

D. *Areas of least efficiency/greatest waste*

E. *Areas that can be most easily addressed*

III. SUMMARY OF ENERGY AUDIT

NOTE: Although an energy audit is not a requirement, we strongly recommend an audit in order to provide better understanding of existing conditions and identification of opportunities for energy reduction

IV. SUMMARY OF FOSSIL FUEL REDUCTION MEASURES

A. *Overview of short-, and long-term goals*

B. *Getting to 20%*

- i. Prioritized list of strategies to reduce fossil fuel usage
- ii. Tools, resources and financial incentives
- iii. Program Management Plan for implementation, monitoring and oversight

V. FOSSIL FUEL ENERGY REDUCTION MEASURES

A. *Short-term energy reduction goals – getting to 20% reduction in 5 years*

- i. Municipal Buildings (including schools)
 - a. General goals and Prioritized List of Specific Projects
 - Retrofits and Renovations
 - New Construction and Additions
 - b. Projected Energy savings
 - c. Estimated Project Capital and Operating Costs
 - d. Schedule for implementation
- ii. Vehicles (including schools)
 - a. Areas of vehicle fleet affected
 - b. New vehicle/technology costs
 - c. Projected Annual energy savings
 - d. Timing of anticipated purchase
- iii. Street and traffic lighting
 - a. General goals and specific projects
 - b. Projected Energy savings
 - c. Project cost
 - d. Timeframe for implementation
- iv. Municipally-owned and -operated clean renewable or alternative energy installations
 - a. Project overview
 - b. Projected clean energy production
 - c. Project Capital Cost
 - d. Timeframe for implementation
- v. Total projected fossil fuel energy reduction

B. *Measurement and Verification Plan for Projected Reductions*

- i. Provide Common Technology Features as applicable, e.g. submetering, smart metering, energy management systems
- ii. Energy Information Reporting System
 - a.** Centralized Compilation of data and creation of tracking reports
 - b.** Comparison of actual vs projected reductions

C. *Long--term energy reduction goals – Beyond 5 years*

- i. Municipal Buildings (including schools)
- ii. Vehicles (including schools)
- iii. Street and traffic lighting
- iv. Municipally-owned and -operated clean renewable or alternative energy installations
- v. Total fossil fuel energy reduction

VI. CONCLUSION

List of Resources – Identify resources that are available (websites, documents, tools)

Contacts – Provide contact information for local, state, federal non-profit entities that support energy reduction planning

MISCELLANEOUS

- AFTER all energy reduction measures have been taken, credit may be given for the addition of renewable energy resources to reach the 20% reduction goal.
- A community can meet this requirement if it has completed an inventory as described above and has already implemented a program to reduce the baseline within the previous 24 months.
- For applications consisting of more than one community, all communities must complete the inventory. However, the comprehensive program to reduce the baseline by 20% can be applied across all communities.

BTU Conversion Chart

Fuel Energy Content of Common Fossil Fuels Per DOE/EIA

BTU Content of Common Energy Units – (1 million Btu equals 1 MMBTU)

- 1 barrel(42 gallons) of crude oil = 5,800,000 Btu
- 1 gallon of gasoline = 124,000 Btu (based on U.S. consumption, 2007)
- 1 gallon of diesel fuel = 139,000 Btu
- 1 gallon of heating oil = 139,000 Btu
- 1 barrel of residual fuel oil = 6,287,000 Btu
- 1 cubic foot of natural gas = 1,028 Btu (based on U.S. consumption, 2007)
- 1 gallon of propane = 91,000 Btu
- 1 short ton of coal = 20,169,000 Btu (based on U.S. consumption, 2007)
- 1 kilowatt hour of electricity = 3,412 Btu
- 1 therm = 100,000 Btu

FOR MORE INFORMATION

Website:

www.mass.gov/energy/greencommunities

3/24/10 (7)

Christine Joyce

From: Paulina Knibbe [p.knibbe@comcast.net]
Sent: Wednesday, March 24, 2010 10:02 AM
To: Manager Department
Subject: [Fwd: Updated Green Communities Designation Form and Final Grant Application now Available!]

Could you please add 'Green Communities Application' to the agenda under Selectman's business for this Monday's meeting ?

Include this email as material for that item

Thank-you.

Paulina

----- Original Message -----

Subject: Updated Green Communities Designation Form and Final Grant Application now Available!

Resent-From: <gab@acton-ma.gov>

Date: Wed, 24 Mar 2010 09:50:00 -0400

From: Lusardi, Meg (ENE) <Meg.Lusardi@state.ma.us>

To: <gab@acton-ma.gov>

Revised Green Communities Designation Form and Final Grant Application now Available!

The Green Communities Division officially launched the Green Communities Designation and Grant Program on January 22, 2010. Created by the Green Communities Act of July 2008 and funded by proceeds from the Regional Greenhouse Gas Initiative (RGGI), the program provides grants to municipalities who meet 5 criteria and qualify to be designated as a Green Community. These grants can be used for energy efficiency or renewable energy initiatives on municipally owned land.

A Program Opportunity Notice can be found on our website at
http://www.mass.gov/Eoeea/docs/doer/green_communities/grant_program/Green_Communities_Gra

The program entails a 2 stage application process. First, a community must apply to be designated a Green Community by demonstrating it has met all of the qualification criteria. **This application has been updated** and can be found on our website at

http://www.mass.gov/Eoeea/docs/doer/green_communities/grant_program/Designation_form_and_guidance_

For the FY 2010 program, in order to be eligible to submit a grant application, the local governmental body must submit a designation application by Friday, May 14, 2010 by 5:00pm, but may submit a designation application as soon as they are ready.

3/24/2010

If a municipality is designated a Green Community, then it can submit an application for grant funding. This application is now FINAL and can be found on our website at http://www.mass.gov/Eoeea/docs/doer/green_communities/grant_program/Green_Communities_Gra
Deadline for submitting a grant application is Friday May 28th, 2010 by 5:00 pm. Grants of up to \$1,000,000 will be made available in this initial round.

A toolkit for meeting the criteria can be found on the "Green Communities Grant Program" page of our website at www.mass.gov/energy/greencommunities.

If you have any questions, please contact your Regional Coordinator:

Northeast Region: Joanne Bissetta, joanne.bissetta@state.ma.us, 978-694-3315

Southeast Region: Seth Pickering, seth.pickering@state.ma.us, 508-946-2838

Central Region: Kelly Brown, kelly.brown@state.ma.us, 508-767-2703

Western Region: Jim Barry, jim.barry@state.ma.us, 413-755-2232

We look forward to receiving your applications and creating a Greener Energy Future for the Commonwealth!

**Meg Lusardi, Deputy Director
Green Communities Division**

Massachusetts Department of Energy Resources
100 Cambridge Street, Suite 1020, Boston, MA 02114
Ph: 617.626.7364 Fax: 617.727.0030
<http://www.mass.gov/doer/>



Creating a Greener Energy Future for the Commonwealth

Steve Ledoux

From: Paulina Knibbe [p.knibbe@comcast.net]
Sent: Friday, March 26, 2010 9:08 AM
To: Manager Department
Subject: [Fwd: Status report---Green Community criteria]

Please include this in the packet as part of the discussion of the Green Communities. Thank-you.

Paulina

----- Original Message -----

Subject: Status report---Green Community criteria
Date: Fri, 26 Mar 2010 00:13:52 -0400
From: Kate Crosby <kate_crosby@newview.org>
Reply-To: kate_crosby@newview.org
To: John Murray <jmurray@acton-ma.gov>, Steve Ledoux <sledoux@acton-ma.gov>, Paulina Knibbe <p.knibbe@comcast.net>
CC: Christopher Schaffner <chris@greenengineer.com>

John, Steve, Paulina,

I realize that we are at (or near) a decision point about putting effort into meeting the five Green Community criteria by May 14. I am sending along what I know about where we stand, hoping that it will be of use in your decision-making.

I recognize that there are pieces involved that I am not speaking to, and a few I may not be cognizant of, but will include what I am aware of.

Here goes:

ENERGY REDUCTION PLAN

I made a presentation to the School Committee this evening (Thursday) about the 2 criteria that require their participation (energy reduction plan, fuel-efficient vehicles), and they indicated great enthusiasm. Easy to do....since there's no energy plan with specifics yet...but they're sounding ready to sign on the dotted line for both. Their next meeting is May 6, and they're ready to have us come back for formal approval.

JD is ready to be part of this----both formulating the energy reduction plan and putting together a grant application. He did say some nice stuff tonight at SC about that if it makes sense for the whole grant to be focused on a municipal goal (like say reducing the energy footprint of the Public Safety Building), then he would be behind that, whatever would produce the greatest benefit in energy reduction for the town.

We had a good training session with Portfolio Manager today. I certainly can't see all the way down the road to the final version of an energy reduction plan, but it continues to look attainable.

STRETCH CODE

3/26/2010

We are wrapping up a hefty outreach campaign about the Stretch Code, and I think the odds of passing it at Town Meeting are pretty good....less than certain to be sure....but good.

FUEL EFFICIENT VEHICLES

The fuel efficiency requirement will be relatively simple compared to the other tasks. Not a big concern.

GRANT APPLICATION

We need to be thinking about the grant application due on May 28. The state has indicated they will award partly based on viability as documented through feasibility, design, permits, budget, financing, pay-back.

Two possibilities (others to be sure) on the municipal side that look promising in this regard:

- Retrocommissioning the Public Safety Building to see if we can get its energy use down (Chris says this costs less than \$2/sqft, so it would be less than \$50,000 total, and he believes it would only take a week to get us a quote---this is related to the work he does, though not directly within his field)
- Replacing the HVAC systems at Fire Stations #1 and #2 (Dean has the documentation for this all worked up, Paulina reminded me of that as well), \$250K per fire station for a total of \$500K

EXPEDITED PERMITTING

The biggest remaining unsolved puzzle that we know of is the expedited permitting. I certainly don't want to put the Planning Board in a position where they're being pushed in a way that threatens to compromise their responsibilities. On the other hand, I don't want to overlook an opportunity to solve this puzzle by May 14.

If we can get all these pieces to fit by May 14, it will be fabulous.

If we can't work it out, due to the expedited permitting....or other unforeseen bumps in the road....or just running out of time....then we'll look to completion by the fall.

-Kate

C 978-621-2595

H 978-263-7326